



# SPLITS

HIGH DEFINITION  
COMPONENT SYSTEMS

PCH-14X

PCH-314 / PCH-414

PCH-514 / PCH-614

INSTALLATION & OPERATION



Dear Customer,

*Congratulations on your purchase of America's finest brand of car audio components. At Rockford Fosgate we are committed to musical reproduction at its best, and we are pleased you chose our product. Through years of engineering expertise, hand craftsmanship and critical testing procedures we have created a wide range of products that reproduce music with all the clarity and richness you deserve.*

*For maximum performance we recommend you have your new Rockford Fosgate product installed by an Authorized Rockford Fosgate Dealer, as we provide specialized training through Rockford Technical Training Institute (RTTI). Please read your warranty and retain your receipt and original carton for possible future use.*

*To add the finishing touch to your new Rockford Fosgate image order your Rockford accessories, which include everything from T-shirts and jackets to hats and sunglasses.*

*To get a free brochure on Rockford Fosgate products and Rockford accessories, please call 1-800-669-9899 or FAX 1-602-966-3983 in the U.S. For Canada, call Korbon Trading at 905-567-1920. For international orders FAX 001-1-602-967-8132 or call 001-1-602-967-3565.*

## **PRACTICE SAFE SOUND™**

CONTINUOUS EXPOSURE TO SOUND PRESSURE LEVELS OVER 100dB MAY CAUSE PERMANENT HEARING LOSS. HIGH POWERED AUTO SOUND SYSTEMS MAY PRODUCE SOUND PRESSURE LEVELS WELL OVER 130dB. USE COMMON SENSE AND PRACTICE SAFE SOUND.

If, after reading your manual, you still have questions regarding this product, we recommend that you see your Rockford Fosgate dealer. If you need further assistance, you can call us direct at 1-800-795-2385. Be sure to have your serial number, model number and date of purchase available when you call.

The serial number can be found on the outside of the box. Please be sure to record it in the space provided below as your permanent record. This will serve as verification of your factory warranty and could become useful in recovering your product if ever stolen.

Serial Number: \_\_\_\_\_

Model Number: \_\_\_\_\_

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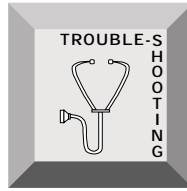
## GETTING STARTED

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Welcome to Rockford Fosgate! This manual is designed to provide information for owner, salesperson and installer. For those of you who want quick information on how to install this product, please turn to the **Installation Section** of this manual or refer to the icons listed below. Other information can be located by using the Table of Contents. We, at Rockford Fosgate, have worked very hard to make sure all the information in this manual is current. But, as we are constantly finding new ways to improve our product, this information is subject to change without notice.



Sections marked **INSTALLATION** include "slam dunk" assembly and wiring connections



Sections marked **TROUBLESHOOTING** include recommendations for curing installation problems

# PACKAGE CONTENTS

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## PCH-14x

- (1) Installation & Operation Manual
- (2) 3/4" Tweeter
- (2) TX-4186 Crossover
- (2) Surface Mount Base
- (2) Surface Mount Cup
- (2) Flush Mount Base
- (2) Flush Mount Cup

## PCH-414/PCH-514 or PCH-614

- (1) Installation & Operation Manual
- (2) 3/4" Tweeter
- (2) 4", 5" or 6" Midrange Speaker
- (2) PCH-142x Crossover
- (2) Speaker Grille Ring
- (2) Speaker Grille Gasket
- (2) Surface Mount Base
- (2) Surface Mount Cup
- (2) Flush Mount Base
- (2) Flush Mount Cup
- (8) #8 x 1.24 Screw
- (2) 15' 22 gauge Speaker Wire

## PCH-314

- (1) Installation & Operation Manual
- (2) 3/4" Tweeter
- (2) 3" Midrange Speaker
- (2) 4x6 Mounting Plate
- (2) TX-4186 Crossover
- (2) 100µf Capacitor
- (2) Surface Mount Base
- (2) Surface Mount Cup
- (2) Flush Mount Base
- (2) Flush Mount Cup
- (8) #8 x 1.24 Screw

# INTRODUCTION

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In today's vehicles, space for everything is at a premium. Many times, the space that car designers dedicate for the stereo system is an afterthought. Rockford Fosgate realizes that people who want stereo systems in their vehicles have to contend with these real world problems. Our solution is the ***Punch Splits High Definition Component Systems***. Punch Splits speakers are designed to fit in factory locations of vehicles with little modification while providing the awesome sound quality people have come to expect from Rockford Fosgate.

# TECHNICAL DESIGN FEATURES

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## *Midrange Features*

### ◆ PVA Treated Cone

The lightweight paper cones are treated with PVA (PolyVinyl Acetate) for environmental stability and increased rigidity. This treatment promotes smooth midrange performance and low frequency extension free of distortion.

**THE RESULT:** Strong and lightweight high performance cones.

### ◆ Vented Pole Piece

The vented pole piece by design, ensures proper ventilation to cool the voice coil and maintains lower operating temperatures. This increases the thermal power handling of the speaker.

**THE RESULT:** Improves power handling by cooling the voice coil.

### ◆ High Temperature Voice Coil

The voice coil used in the Punch Series is of a high temperature copper wire construction. The wire is wound in two layers on a black anodized aluminum voice coil former. The voice coil former dissipates heat away from the voice coil improving the speaker's thermal stability and improving the reliability of the speaker.

**THE RESULT:** Improves reliability by dissipating generated heat.

### ◆ Nitrile Rubber Surround

The nitrile material is resilient to temperature variations and provides a consistent support necessary for the linear motion of the speaker cone. In addition, the inherent damping capabilities eliminates the transmission of degrading sonic disturbances between the cone and the frame of the speaker greatly improving the clarity of the speaker's midrange frequency response.

**THE RESULT:** Improves speaker's frequency response.

## *Tweeter Features*

### ◆ Neodymium Magnets

The high ionic compound of neodymium enables a smaller tweeter magnet assembly to be used as opposed to the much larger ferrite magnets that are commonly used in speaker manufacturing.

**THE RESULT:** An efficient magnet which allows smaller tweeter construction.

### ◆ Magnetic Fluid Cooling

Magnetic fluid is a synthetic liquid consisting of microscopic magnetic particles. The fluid has four times the thermal conductivity as air which makes it an ideal cooling agent. Magnetic fluid is injected into the voice coil gap which helps dissipate heat generated by the voice coil.

**THE RESULT:** A thermal conductor which allows increased power handling.

### ◆ Swivel Mount Design

The tweeter is encapsulated in a variable swivel housing. This design allows direct dispersion of the tweeter in order to accommodate various mounting positions. The swivel mount design allows the tweeter to maximize its sonic potential.

**THE RESULT:** Precise tweeter imaging regardless of mounting position.

## *Crossover Features*

### ◆ Adjustable Tweeter Level Matching

The passive crossovers utilize a series power resistor for tweeter level matching. The factory set tweeter output level is 0dB, however can be reduced -3dB to create a smoother transition between the midrange and tweeter. The ability to level match allows the system to be custom "tuned" for a particular listener or setup.

**THE RESULT:** Allows custom setup of tweeter output level.

## ◆ Optical Compression Circuit

The supplied passive crossovers utilize an optical compression circuit for tweeter protection. This protection circuit absorbs the destructive signal caused when the amplifier's output is clipped. This greatly increases the power handling capability and the reliability of the tweeter.

**THE RESULT:** Increased tweeter reliability under harsh conditions.

## ◆ Passive Filter Bypass

The TX-4186 utilizes an extra screw terminal on the crossover housing which allows the tweeters audio signal to "bypass" the internal passive filter. This feature allows an external active filter to be used while maintaining optical compression for tweeter reliability.

**THE RESULT:** System flexibility with constant tweeter protection.

# INSTALLATION CONSIDERATIONS

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Since many of the Punch Splits speakers are designed for direct replacement in factory speaker locations, some of the following instructions will not apply. To maximize the performance in difficult or custom installations, please see your Authorized Rockford Fosgate Dealer.

**Warning!** Please read the entire Installation section before attempting the installation of your Punch Splits Speakers.

### ***Tools Needed***

The following is a list of some of the tools necessary for the installation of the Punch Splits speakers.

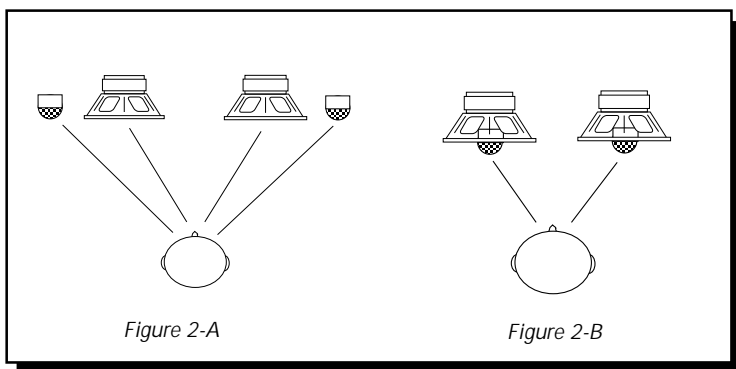
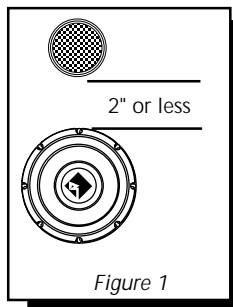
Power Drill with assorted bits  
Volt Meter  
Assorted Screwdrivers  
Tape Measure  
Hole Saw (1 $\frac{1}{4}$ "  
(Tweeter)

Wire Strippers  
Wire Crimpers  
Marking Pen  
Hole Saw Arbor  
Assorted Hole Saws  
(Midrange)

### ***Placing the Punch Splits Speakers***

A solid front stage with a good image is one of the most difficult tasks to achieve in a vehicle. No car has the optimum listening environment. This makes proper sound staging very difficult to accomplish. Most speakers tend to be placed where they will fit easily, as opposed to where they can perform the best *The mounting location of your Punch Splits speakers will have a great effect on the sound quality of your stereo system. The special care taken to place the Punch Splits speakers, will yield many hours of listening enjoyment in return. Several important recommendations should be followed.*

- Place the speakers where they have a direct path to the listening area.
- When using the Punch Splits, there are two options for speaker placement between the midrange and tweeter. For the best integration between the midrange and tweeter, the tweeter should be placed less than 2" from the midrange. (Figure 1)
- If you cannot place the tweeter less than 2" from the midrange, then place the tweeter more than 7" from the midrange. Placing the tweeter 2"-7" from the midrange can cause destructive interference (frequency response problems) which will affect the speaker's ability to reproduce the frequency range around the crossover frequency of the Punch Splits system.
- Whenever possible, place the tweeter directly above or below the midrange as this maximizes the imaging (point source) capability of the Punch Splits speakers. (Figure 2)



Sound radiated from a "point source" has the most optimum stereo imaging because the separation of the acoustical centers between the midrange and tweeter for each channel is at the optimum. **Figure 2-A** describes a horizontal speaker alignment. In a closed environment such as an automobile, horizontal speaker alignment can cause severe amplitude and phase differences which will degrade not only the imaging, but also the frequency response. This is due to the path length differences between the midrange and tweeter. **Figure 2-B** displays a vertical alignment between the midrange and tweeter. With a vertical alignment, the path length differences between the midrange and tweeter are reduced to a minimum. The result is a negligible difference in path lengths between the midrange and tweeter regardless of the proximity of the listener to the speakers. Mounting the



Punch Splits speakers with minimum path length differences will ensure the best staging and imaging possible from your audio system.



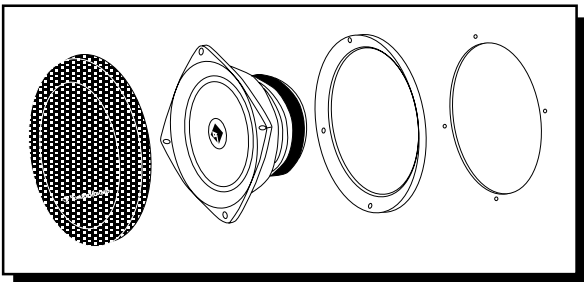
## **INSTALLATION**

The mounting of the Punch Splits speakers and crossovers is just as important as choosing the location for the speakers. Improper installation will degrade the sound quality and reduce the reliability of the Punch Splits speakers. To maximize the performance of your speakers, the following criteria should be considered.

- After choosing possible locations for the speakers, it is important to make sure there is a flat area large enough for the speaker to mount.  
**Warning !Failure to do this can cause damage to the speaker if the frame of the speaker is bent during the installation.**
- Check to see that the location is deep enough for the speaker and the location does not interfere with the normal operation of the vehicle.
- When mounting the speakers in the door of a vehicle, special care should be taken to make sure the speaker/s do not interfere with either the window operation or the door opening and closing. (Be careful of the tension bar in the door.)
- When mounting the speakers on the rear deck of the vehicle, double check the operation of the rear hatch or trunk lid. Make sure the tension bars and other moving parts are not obstructed by the speakers' installation.

Refer to the **Specifications** section of the manual for the mounting depth and proper diameter hole to cut for the Punch Splits speakers.

### ***Mounting the Midrange***

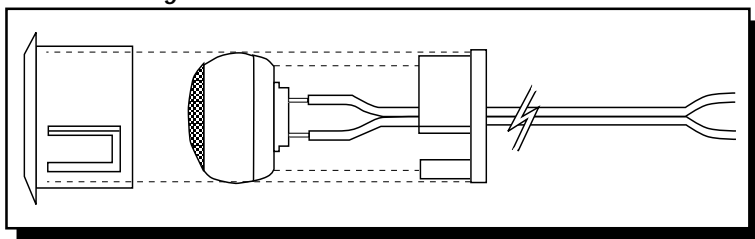


1. Cut the proper size hole for the midrange/woofer.
2. Place the mounting ring over the mounting hole and mark the location of the screw mounting holes.
3. Remove the ring. Drill the holes for the screws using a 1/8" drill bit.
4. Route the wire through the hole.



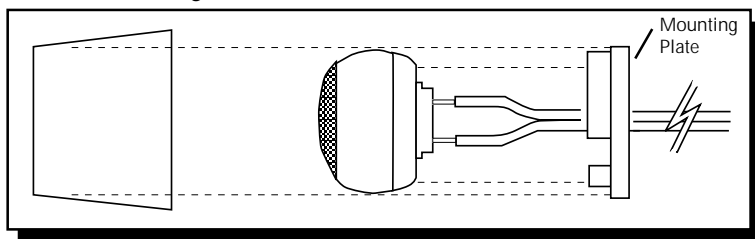
5. Place the mounting ring over the hole.
6. Attach the wires and be sure to observe the proper speaker polarity. Keep the speaker wires away from sharp and moving objects.
7. Place the speaker into the hole and screw the speaker into place.  
**Be careful not to bend the speaker frame during this step.**
8. Press the speaker grille into the mounting ring.

### ***Flush Mounting the Tweeter***



1. Cut a 1-1/4" mounting hole.
2. Route the wires through the mounting hole.
3. Attach the wires and be sure to observe the proper speaker polarity. Keep the speaker wires away from sharp and moving objects.
4. Snap the tweeter with the flush mount capsule into the hole.
5. Angle the tweeter for best sonic performance.

### ***Surface Mounting the Tweeter***



1. Place the mounting plate on the surface where the tweeter will be located. Mark two (2) opposing mounting holes and the center wire access hole.
2. Remove the mounting plate and drill a 1/4" (6.4mm) hole for the speaker wire access. Drill two (2) 1/8" (3mm) holes for the mounting screws.,
3. Route the wires through the mounting hole.
4. Place the mounting plate in position by threading the speaker wires through the center hole. Mount the mounting plate with the provided mounting hardware.
5. Attach the wires and be sure to observe the proper speaker polarity. Keep the speaker wires away from sharp and moving objects.
6. Snap the tweeter onto the mounting plate.

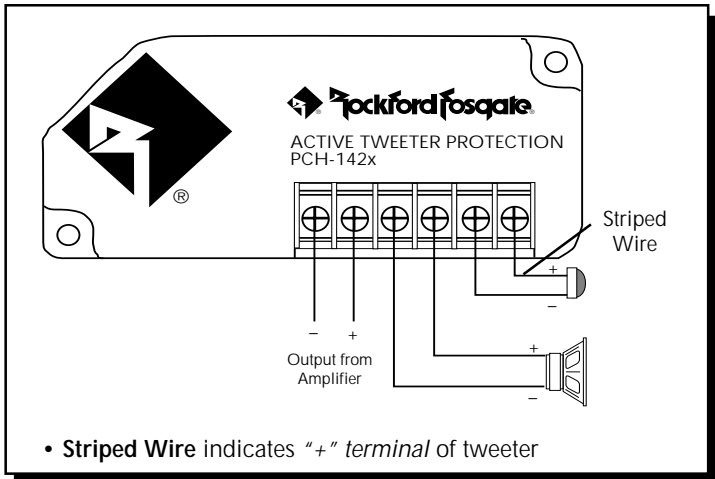
## Mounting the Punch Splits Plates



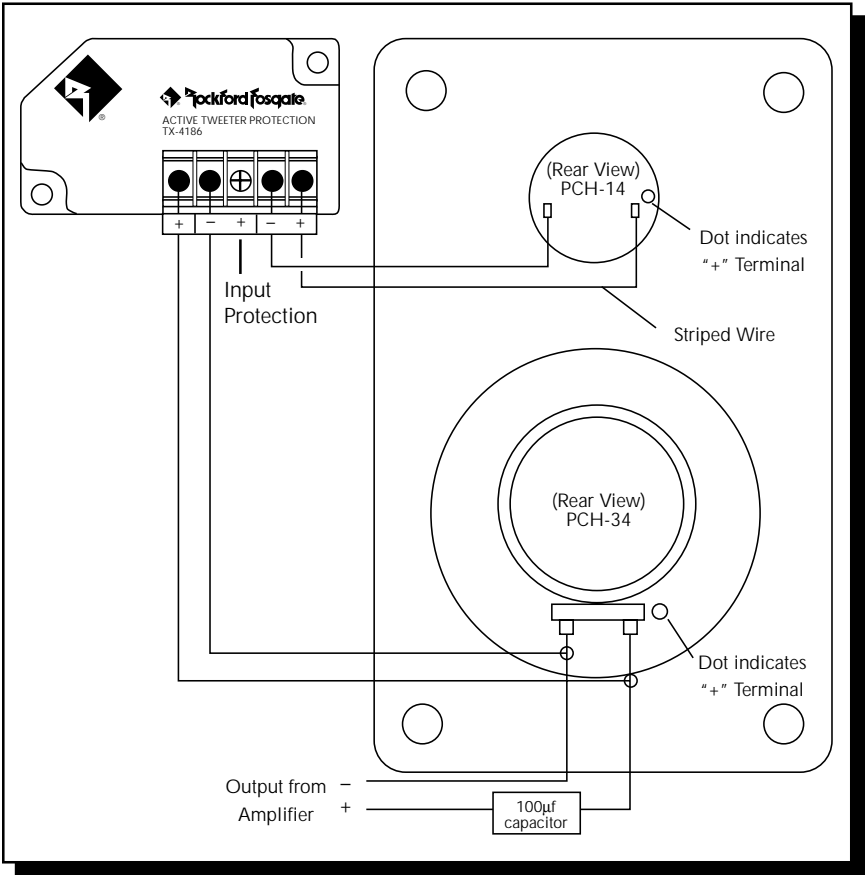
1. Cut the proper size hole for the midrange/woofer and tweeter. **The midrange/woofer hole should be slightly larger than the mounting plate woofer hole.**
2. Place the mounting plate over the mounting holes and mark the location of the screw mounting holes.
3. Remove the ring. Drill the holes for the screws using a 1/8" drill bit.
4. Mount the speaker plate.  
**Be careful not to bend the mounting plate during this step.**
5. Route the wires through the holes.
6. Attach the wires and be sure to observe the proper speaker polarity. Keep the speaker wires away from sharp and moving objects.
7. Place the speaker into the hole and snap the speakers into place.  
*Note: Follow Steps 4 & 5 of Flush Mount Tweeter for tweeter.*

# CROSSOVER INSTALLATION

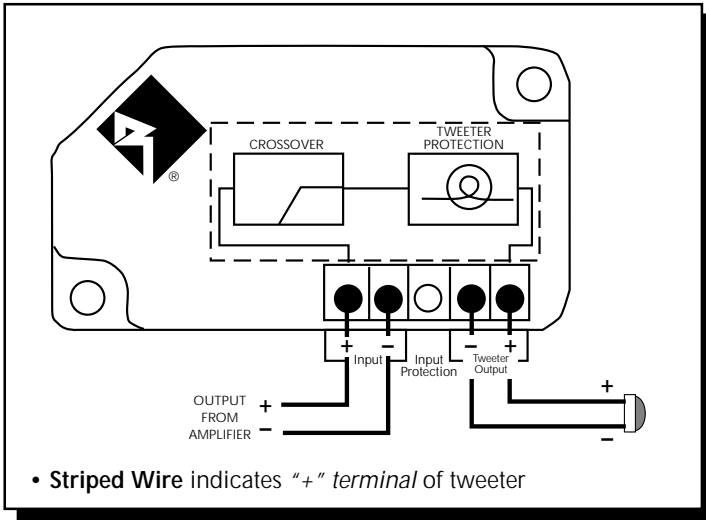
## Wiring the PCH-142x



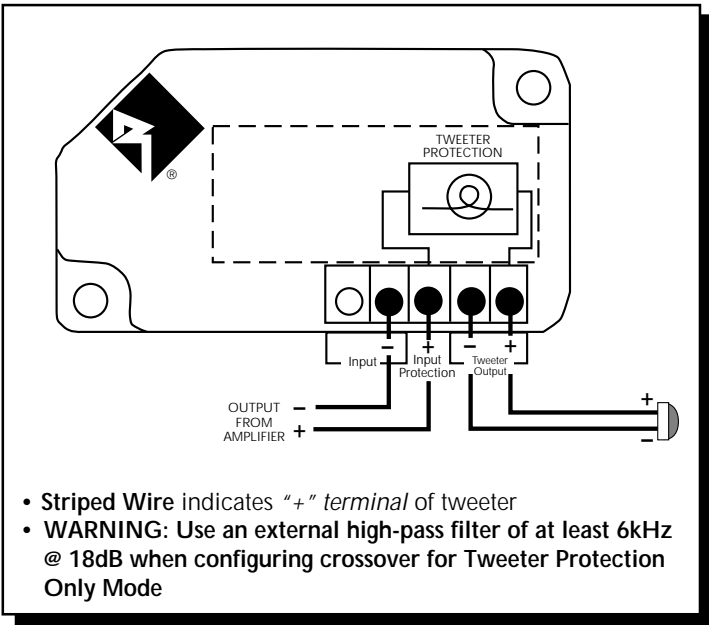
# Wiring the PCH-314



## Wiring the TX-4186 (Crossover/Tweeter Protection)



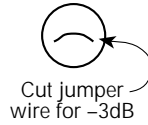
## Wiring the TX-4186 (Tweeter Protection Only)





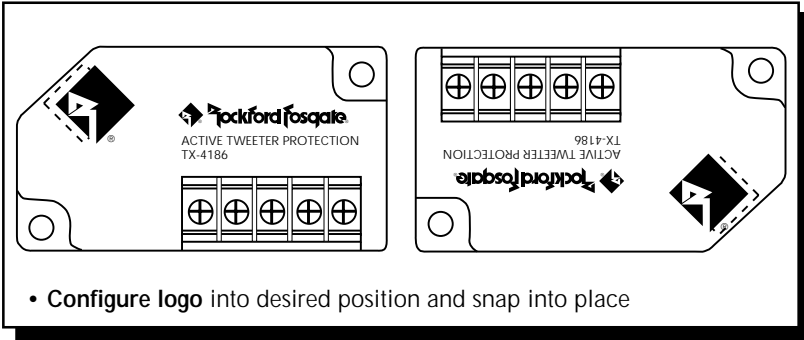
## Tweeter Level Matching

(Bottom view of PCH-142x/TX-4186)



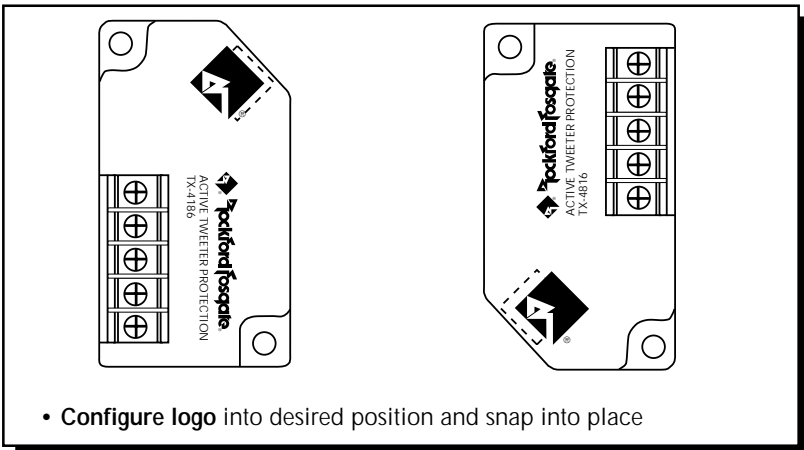
- **Factory set** tweeter level is 0dB
- **Cut jumper wire** on bottom of crossover to reduce tweeter level by -3dB

## Horizontal Logo Mounting



- **Configure logo** into desired position and snap into place

## Vertical Logo Mounting



- **Configure logo** into desired position and snap into place

# TROUBLESHOOTING



Symptom	Diagnosis	Remedy
No sound from speakers	Wires between amplifier, crossover and speakers not connected properly.	Check and repair or replace wiring as needed.
	Amplifier has no output.	Check system with known working amplifier and repair or replace as needed.
	Speaker wires are shorted to each other or to the chassis of the vehicle.	Check for shorts in the wiring with a volt/ohm meter and repair or replaced wires as needed.
	Speakers are blown.	Check system with known working speaker and repair or replace as needed.
Tweeters “burn up” easily	Crossover is in “passive filter bypass” configuration.	Check wiring and re-configure as needed.
	External crossover is not filtering the tweeter properly.	Check configuration of external crossover and re-configure for at least 6kHz @ 18dB/octave
	Excessive clipping from amplifier.	Check gain settings on amplifier and readjust as needed.
	Equalizer in system (if available) has excessive boost in the high frequency range.	Check settings on equalizer and readjust as needed.
Distorted sound from speakers	Incorrect wiring between crossover and speakers	Check wiring and repair or replace as needed.
Engine Noise from One or More Speakers	Speaker wires shorted to chassis of vehicle.	Check for shorts in the wiring with a volt/ohm meter and repair or replace wires as needed.
	Crossover is mounted near radiated noise source. (Power cables, computers, etc.)	Move crossovers away from noise sources. (Refer to <b>Installation</b> section of manual on crossovers.)

# SPECIFICATIONS

Model	PCH-14	PCH-34	PCH-44	PCH-54	PCH-64
Freq. Response	6.5kHz-20kHz	225Hz-10kHz	100Hz-6kHz	50Hz-6kHz	45Hz-6kHz
Power Handling (RMS)	50 Watts*	50 Watts	50 Watts	50 Watts	50 Watts
Nom. Imp.	4Ω	4Ω	4Ω	4Ω	4Ω
Sensitivity (1W/1M)	88dB	85dB	85dB	86dB	89dB
Nom. Diameter	3/4"	3.5"	4"	5.25"	6.5"
Cutout Diameter	1-1/4"	3-3/16"	3-13/16"	4-7/8"	5-11/16"
Mounting Depth	29/32"	1-1/4"	1-9/16"	2-1/2"	2-3/4"
FS (Hz)	2800Hz	225Hz	100Hz	50Hz	45Hz
QTS	1.00	1.50	0.80	0.43	0.40
QMS	1.30	3.10	2.17	2.04	2.05
QES	5.40	2.80	1.29	0.55	0.50
VAS (cu. ft.)	N/A	.02	0.081	0.413	1.038
X-MAX	N/A	0.4mm	1.2mm	2.6mm	3.6mm
Sd (sq. in.)	N/A	6.2	8.99	15.35	22.01

\*with recommended crossover.

	Crossover Frequency	Crossover Slope	Crossover Alignment	Tweeter Protection	Tweeter Level Matching
TX-4186	6kHz	18dB/octave High-Pass	Butterworth	Optical Compression	Factory set at 0dB User selectable -3dB
PCH-142X	6kHz	18dB/octave High-Pass 6dB/octave Low-Pass	Butterworth	Optical Compression	Factory set at 0dB User selectable -3dB

Specifications are subject to change without notice.



# **LIMITED WARRANTY INFORMATION**

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Rockford Corporation offers a limited warranty on Rockford Fosgate products on the following terms:

- **Length of Warranty**

- |                         |  |
|-------------------------|--|
| 1 year on speakers      | 30 days on speaker B-stock (receipt required)    |
| 3 years on electronics  | 90 days on electronic B-stock (receipt required) |
| 2 years on source units |  |

- **What is Covered**

This warranty applies only to Rockford Fosgate products sold to consumers by Authorized Rockford Fosgate Dealers in the United States of America or its possessions. Product purchased by consumers from an Authorized Rockford Fosgate Dealer in another country are covered only by that country's Distributor and not by Rockford Corporation.

- **Who is Covered**

This warranty covers only the original purchaser of Rockford product purchased from an Authorized Rockford Fosgate Dealer in the United States. In order to receive service, the purchaser must provide Rockford with a copy of the receipt stating the customer name, dealer name, product purchased and date of purchase.

- **Products found to be defective** during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Rockford's discretion.

- **What is Not Covered**

1. Damage caused by accident, abuse, improper operations, water, theft
2. Any cost or expense related to the removal or reinstallation of product
3. Service performed by anyone other than Rockford or an Authorized Rockford Fosgate Service Center
4. Any product which has had the serial number defaced, altered, or removed
5. Subsequent damage to other components
6. Any product purchased outside the U.S.
7. Any product not purchased from an Authorized Rockford Fosgate Dealer

- **Limit on Implied Warranties**

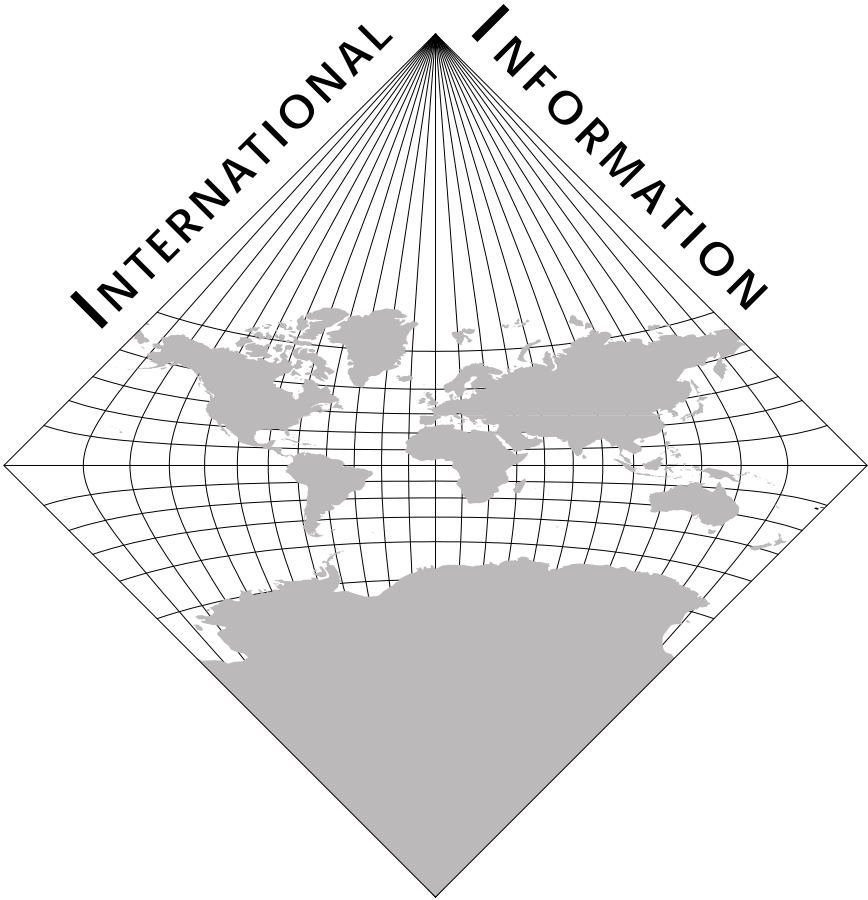
Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. Some states do not allow limitations on the length of an implied warranty, so this limitation may not apply. No person is authorized to assume for Rockford Fosgate any other liability in connection with the sale of the product.

- **How to Obtain Service**

Please call 1-800-669-9899 for Rockford Customer Service. You must obtain an RA# (Return Authorization number) to return any product to Rockford Fosgate. You are responsible for shipment of product to Rockford.

Ship to: **Electronics**  
Rockford Corporation  
Warranty Repair Department  
2055 E. 5th Street  
Tempe, AZ 85281  
RA#: \_\_\_\_\_

Ship to: **Speakers**  
Rockford Acoustic Design  
(Receiving-speakers)  
609 Myrtle N.W.  
Grand Rapids, MI 49504  
RA#: \_\_\_\_\_



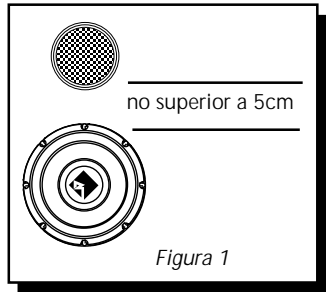
Asegurese de leer las instrucciones antes de instalar estos productos.

## INTRODUCCIÓN

En los vehiculos de hoy en dia, premia el espacio para todo. Muchas veces, el espacio que los diseñadores de coches dedican al equipo de música es un requerimiento posterior al diseño. Rockford Fosgate sabe que la gente que quiere equipos de música en sus vehiculos, debe pelear con este problema cotidiano. Nuestra solución es los sistema de componentes de Alta definición Punch Split. Los altavoces Punch Split están diseñados para ser situados en los lugares dispuestos por la fábrica de los vehiculos con sólo una ligera modificación, ofreciendo la calidad de sonido que la gente espera de Rockford Fosgate.

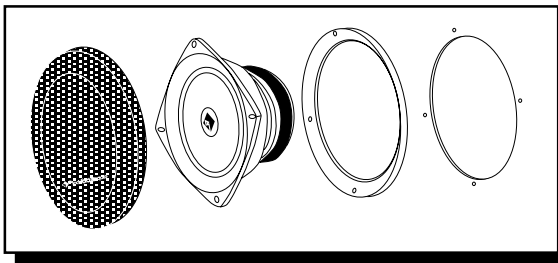
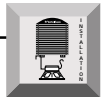
## LUGAR DE MONTAJE

- Para obtener una buena integración entre el altavoz de medios y el tweeter, el tweeter debe estar situado a menos de dos pulgadas del altavoz. (Figura 1)



## INSTALACIÓN

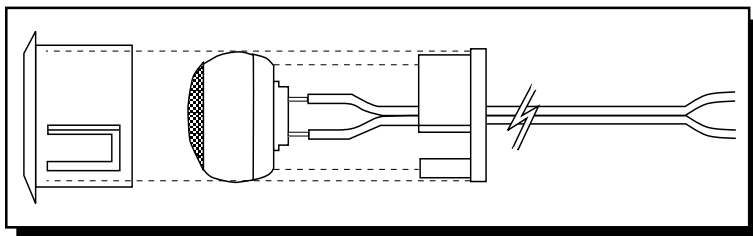
### Montaje del altavoz de medios



1. Corte el agujero de tamaño exacto para el altavoz de medios o woofer.
  - Para el PCH-44, corte un agujero de 96,8mm de diámetro
  - Para el PCH-54, cortelo de 123,8mm
  - Para el PCH-64, cortelo de 144,5mm
2. Coloque el aro de montaje sobre el agujero y marque la posición de los agujeros para los tornillos.
3. Saque el aro de montaje, Perfore los agujeros para los tornillos de sujeción usando una broca de 1/8" (3mm).

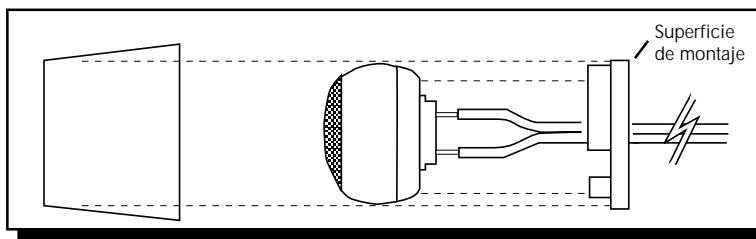
- Coloque el cable a través del agujero.
- Coloque el aro de montaje sobre el agujero.
- Conecte los cables al altavoz observando la polaridad del mismo.
- Coloque el altavoz en el agujero y atornillelo. **Tenga cuidado en no doblar el soporte del altavoz durante este paso.**
- Presione la reja del altavoz sobre el aro de montaje.

### **Montaje empotrado del Tweeter**



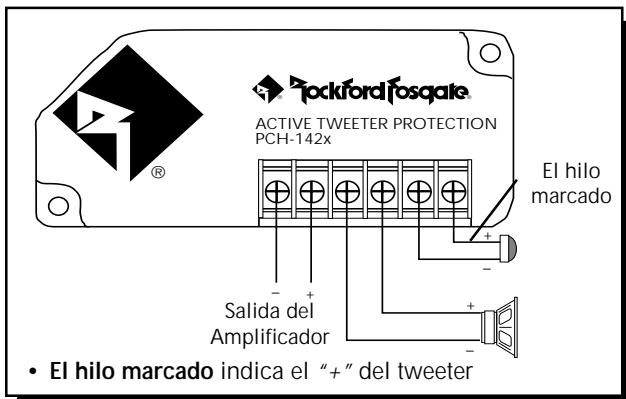
- Corte un agujero de 1 1/4" (32mm).
- Coloque los cables a través del agujero de montaje.
- Conecte los cables observando la polaridad del altavoz. Aleje los cables de objetos móviles o punzantes.
- Encaje el tweeter con la capsula de montaje en el agujero.
- Oriente el tweeter hacia donde obtenga una mejor característica del sonido.

### **Montaje superficial del Tweeter**



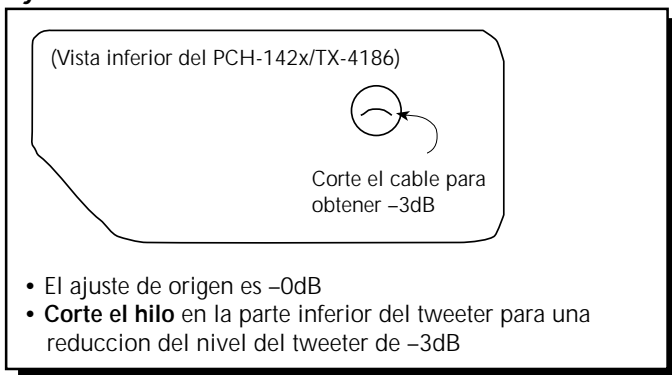
- Coloque la superficie de montaje donde se situará el tweeter. Marque dos agujeros opuestos y haga el agujero contral para el acceso del cable.
- Saque la superficie de montaje y perforo con una broca de 6.4mm para el acceso del cable. Perfore los agujeros para los tornillos con una broca de 3mm.
- Pase los cables a través de los agujeros.
- Coloque la superficie de montaje en la posición, pasando los cables por el agujero central.
- Conecte los cables y asegurese de observar la polaridad del altavoz. Aleje los cables de objetos móviles o punzantes.
- Encaje el tweeter en la superficie de montaje.

## Conectando el PCH-142x



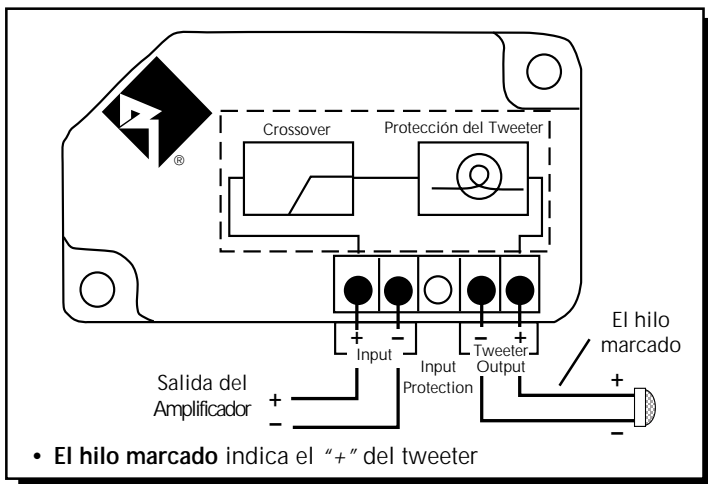
- El hilo marcado indica el "+" del tweeter

## Ajuste de Nivel del Tweeter



- El ajuste de origen es  $-0\text{dB}$
- **Corte el hilo** en la parte inferior del tweeter para una reducción del nivel del tweeter de  $-3\text{dB}$

## Conectando el TX-4186 (Crossover/Proteccion de Tweeter)



- El hilo marcado indica el "+" del tweeter

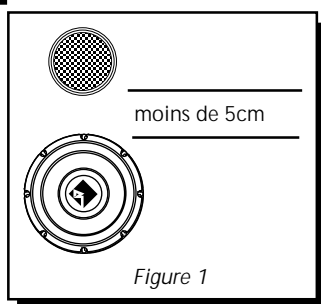
**ATTENTION:** Veuillez lire les instructions suivantes pour l'installation de ces produits.

## INTRODUCTION

Dans les véhicules actuels, l'espace est primordial. Dans beaucoup de cas, l'espace dédié au système audio par les fabricants d'automobiles se retrouve au second plan. Rockford Fosgate réalise que les gens qui veulent un système audio dans leur voiture sont confrontés à ce problème. Notre solution est le système voies séparées Punch Splits. Les haut-parleurs Splits sont conçus pour être installés dans les emplacements d'origine après une légère modification tout en reproduisant la qualité sonore que les gens attendent de Rockford Fosgate.

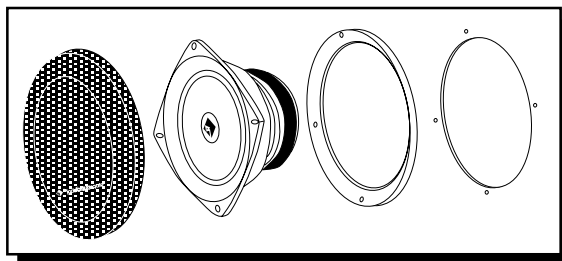
## EMPLACEMENT DE MONTAGE

- Pour bénéficier d'une harmonie maximum entre le médium et l'aigu l'éloignement entre ces deux haut-parleurs devrait être de moins de 5cm entre les 2 châssis. (Figure 1)



## INSTALLATION

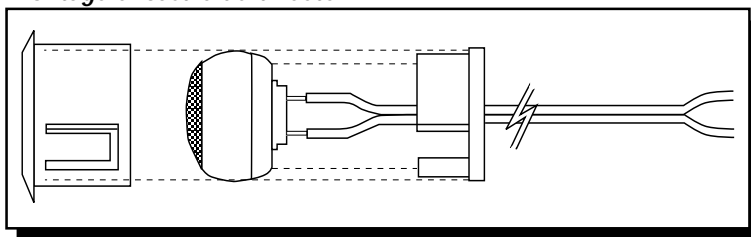
### Montage du haut-parleur médium



1. Découper un trou adapté au haut-parleur médium/woofer.
  - Pour le PCH-44, le diamètre du trou est de 96,8mm
  - Pour le PCH-54, le diamètre du trou est de 123,8mm
  - Pour le PCH-64, le diamètre du trou est de 144,5mm
2. Placer l'anneau de montage sur le trou et repérer l'emplacement des des vis.
3. Retirer l'anneau. Percer les trous des vis en utilisant une mèche de 3mm.

4. Faire passer les fils dans le trou central.
5. Placer l'anneau de montage au-dessus du trou central.
6. Connecter les fils au haut-parleur en respectant les polarités. Eloigner les fils de toute partie tranchante ou mobile du véhicule.
7. Placer le haut-parleur au-dessus du trou central. Visser le haut-parleur dans son emplacement. **Faire attention a ne pas tordre le chassis du haut-parleur durant cette etape de montage.**
8. Mettre la grille dans l'anneau de montage.

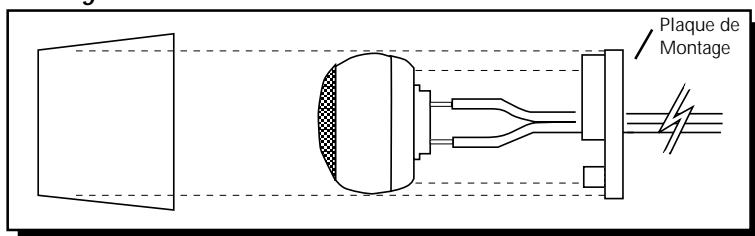
### *Montage encastré du tweeter*



FRANCAIS

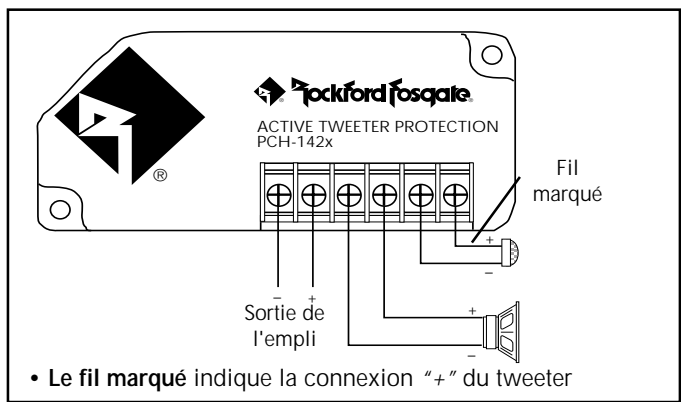
1. Découper un trou de montage de 32mm.
2. Faire passer le fil dans le trou de montage.
3. Connecter les fils au haut-parleur en respectant les polarités. Eloigner les fils de toute partie tranchante ou mobile du véhicule.
4. Clipser le tweeter avec la capsule d'encastrement dans le trou.
5. Diriger le tweeter pour atteindre la meilleure qualité de sonore.

### *Montage en surface du tweeter*

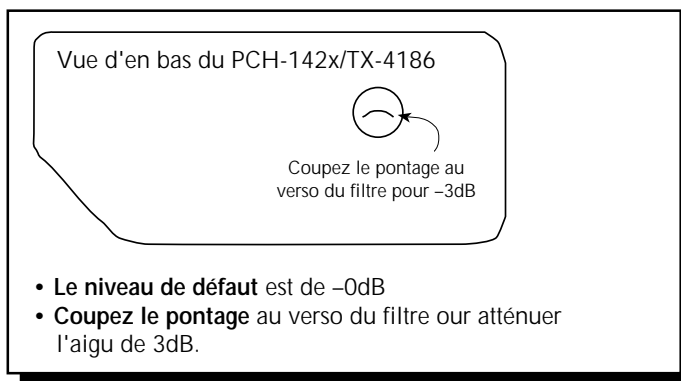


1. Placer la plaque de montage en surface la où le tweeter doit être installé. Marquer deux (2) trous de montage opposés et le trou central pour le fil.
2. Enlever la plaque de montage et percer un trou de 6,4 mm pour le trou central du fil. Percer deux (2) trous de 3mm pour les visses de montage.
3. Diriger les visses dans les trous de montage.
4. Placer la plaque de montage en position en faisant passer les fils à travers du trou central.
5. Connecter les fils au haut-parleur en respectant les polarités. Eloigner les fils de toute partie tranchante ou mobile du véhicule.
6. Clipser le tweeter sur la plaque de montage.

## Branchement du PCH-142x

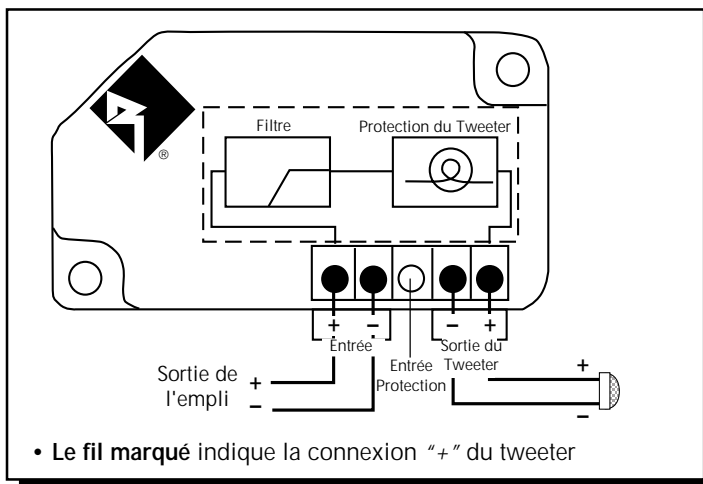


## Compensation du Niveau Aigu



## Branchement du TX-4186

### Filtre passe-haut / Protection du tweeter





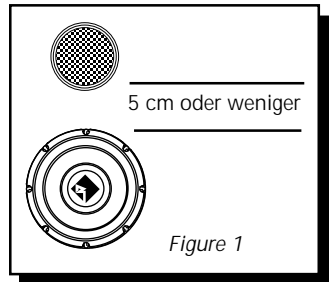
Bitte lesen Sie diese **Gebrauchsanleitung** zuerst sorgfältig durch. Das kann Sie vor dem falschen Einsatz, Ausfallen oder sogar Beschädigung des Produktes oder Ihres Fahrzeuges schützen.

## **EINLEITUNG**

In Fahrzeugen unserer heutigen Zeit ist Platz oft sehr begrenzt. Oftmals sind die vom Werk vorgesehenen Plätze für Lautsprecher sehr unzureichend. Rockford Fosgate hat verstanden, daß es für Viele, die eine Stereoanlage im Auto wollen ein großes Problem ist. Die Lösung dafür ist das Punch Splits Komponenten-System. Punch Splits Lautsprecher wurden designed um in Originaleinbauplätzen Raum zu finden und dabei die gute Klangqualität zu liefern, die Sie von Rockford Fosgate gewöhnt sind.

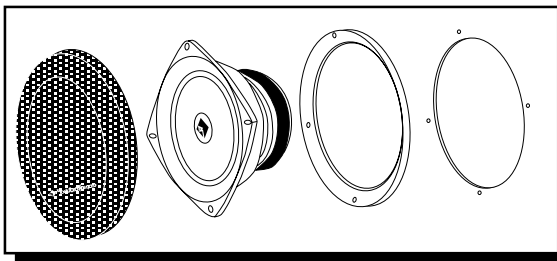
## **EINBAUORT**

- Für die beste Integration zwischen Mittel- und Hochtöner sollte der Hochtöner niemals weiter wie 5 cm vom Mitteltöner entfernt sein.



## **MONTAGE**

### *Montage des Mitteltöners*



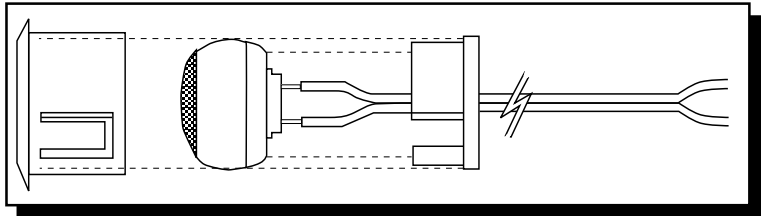
1. Schneiden Sie die richtige Lochgröße für den Mitteltöner/Woofler aus.
  - Für den PCH-44, ein 96,8mm Durchmesserloch
  - Für den PCH-54, ein 123,8mm Durchmesserloch
  - Für den PCH-64, ein 144,5mm Durchmesserloch
2. Platzieren Sie den Montagering über dem vorgesehenen Ausschnitt und markieren Sie die Schraubenlöcher.
3. Entfernen Sie den Ring und bohren Sie die Löcher für den Montagering vor.
4. Führen Sie das Kabel durch das Loch.



**DEUTSCH**

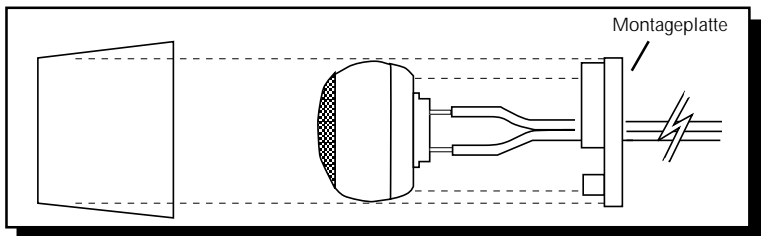
5. Montieren Sie den Lautsprecherring.
6. Schließen Sie den Lautsprecher an und achten Sie darauf, daß die Polung stimmt.
7. Plazieren Sie den Lautsprecher und schrauben Sie ihn fest. **Bitte achten Sie darauf, daß der Lautsprecherkorb sich beim Festschrauben nicht verzieht.**
8. Pressen Sie das Lautsprechergitter vorsichtig in den Montagering.

### *Hochtöner-Einbaumontage*



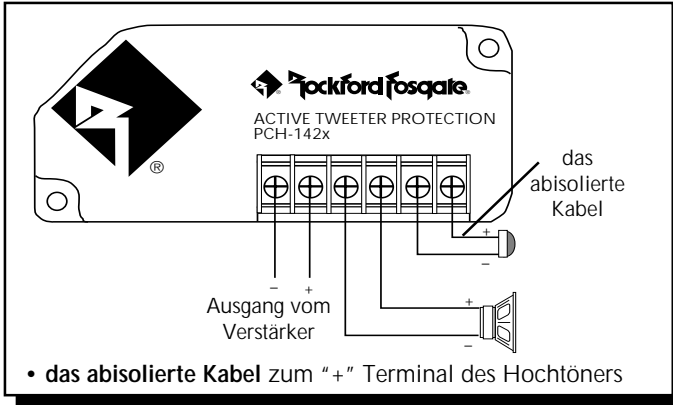
1. Schneiden Sie ein 1-1/4" (32mm) Montageloch.
2. Führen Sie die Lautsprecherkabel durch dieses Loch.
3. Klemmen Sie die Lautsprecherkabel am Lautsprecher an. Achten Sie auf die Polung und das die Kabel an keiner scharfen Kante anliegen.
4. Pressen Sie den Hochtöner mit seinem Gehäuse in das vorgesehene Loch.
5. Drehen Sie den Hochtöner in die klangbeste Stellung.

### *Hochtöner-Aufbaumontage*

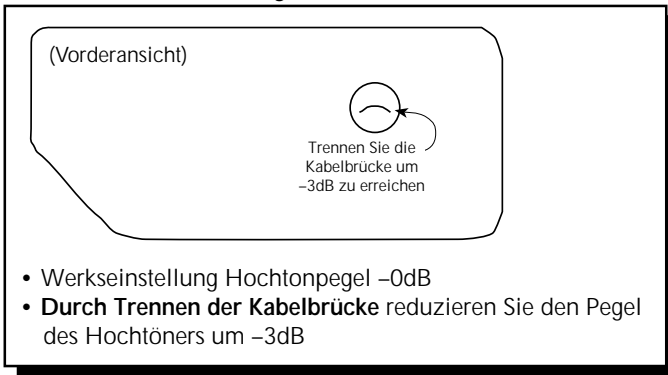


1. Plazieren Sie die Montageplatte des Hochtöners auf die vorgesehene Stelle. Markieren Sie 2 Befestigungslöcher und 1 Mittelloch für das Kabel.
2. Entfernen Sie die Montageplatte und bohren Sie ein Mittelloch von 6,4 mm für das Lautsprecherkabel sowie 2 Befestigungslöcher von 3 mm für die Schrauben.
3. Führen Sie die Kabel durch das vorgesehene Loch.
4. Plazieren Sie die Montageplatte, führen Sie die Lautsprecherkabel durch das Mittelloch und montieren Sie die Montageplatte.
5. Klemmen Sie die Lautsprecherkabel am Lautsprecher an. Achten Sie auf die Polung und das die Kabel an keiner scharfen Kante anliegen.
6. Pressen Sie den Hochtöner auf die Montageplatte.

## Verkabelung des PCH-142x

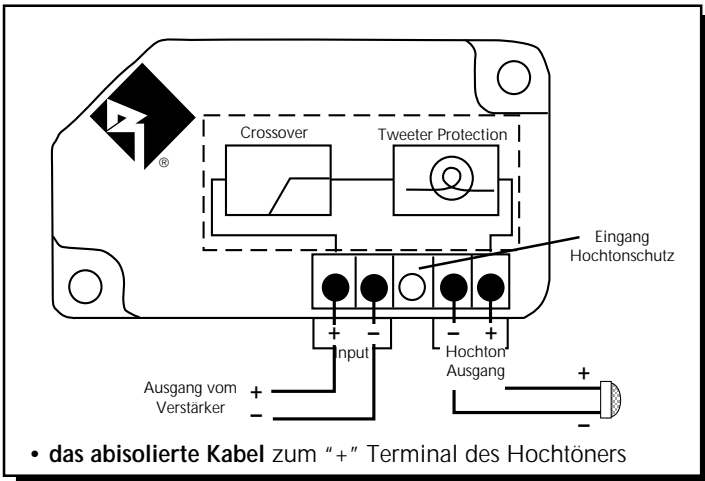


## Tweeter Level Matching



## Verkabelung des TX-4186

(Frequenzweiche/Hochton Sicherung)



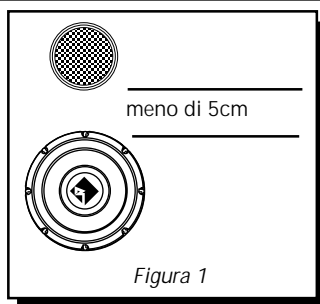
Si prega di leggere le istruzioni prima di procedere all'installazione.

## INTRODUZIONE

Negli autoveicoli di oggi non c'è molto spazio. Molte volte i progettisti di automobili si accorgono solo a vettura ultimata che mancano gli spazi per gli impianti stereo. Rockford Fosgate è conscia del fatto che la gente che vuole realizzare degli impianti stereo sulle proprie autovetture deve affrontare questo problema. La soluzione che proponiamo consiste nel Punch Splits High Definition Component Systems. Gli altoparlanti Punch Splits sono ideati per essere installati, con piccole modifiche, negli spazi predisposti per gli impianti, riuscendo così a riprodurre la grandiosa qualità del suono che la gente si aspetta da Rockford Fosgate.

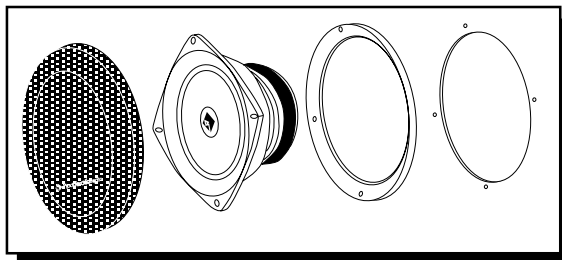
## POSIZIONAMENTO

- Per ottenere la migliore integrazione tra tweeter e midrange vi suggeriamo di posizionare i due componenti a meno di 5 cm tra loro (fig. 1).



## INSTALLAZIONE

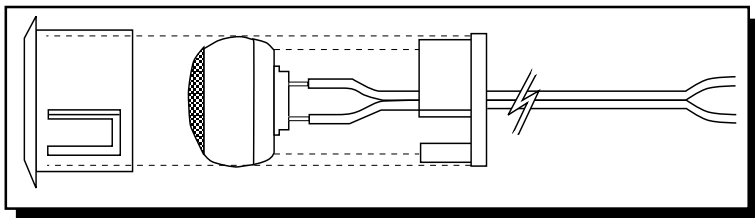
### Installazione del Midrange



1. Praticate un foro adatto per il midrange/woofer
  - 96,8mm per PCH-44
  - 123,8mm per PCH-54
  - 144,5mm per PCH-64
2. Posizionate l'anello della griglia sul foro e segnate la posizione delle viti.
3. Togliete l'anello della griglia e forate il pannello con una punta da 3 mm.
4. Fate passare il cavo attraverso il foro praticato per l'altoparlante.

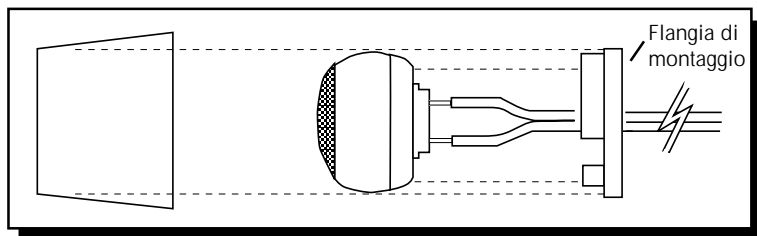
5. Posizionate la griglia sopra il foro dell'altoparlante.
6. Collegate i cavi facendo attenzione alla corretta polarità.
7. Posizionate l'altoparlante nel foro ed avvitatelo. **Assicuratevi di non piegare il cestello dell'altoparlante.**
8. Incastrate la griglia sull'anello di fissaggio.

### *Installazione ad incasso del tweeter*



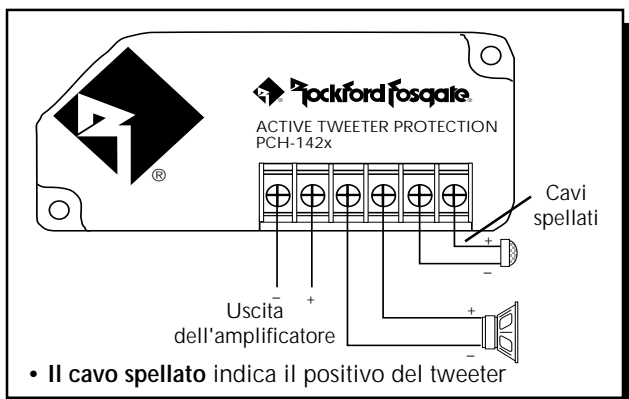
1. Praticate un foro da 32mm.
2. Fate passare i cavi attraverso il buco.
3. Collegate i cavi facendo attenzione alla corretta polarità.
4. Incastrate il tweeter con la flangia di montaggio nel foro.
5. Angolate il tweeter per ottenere la miglior qualità timbrica.

### *Installazione a superficie del Tweeter*

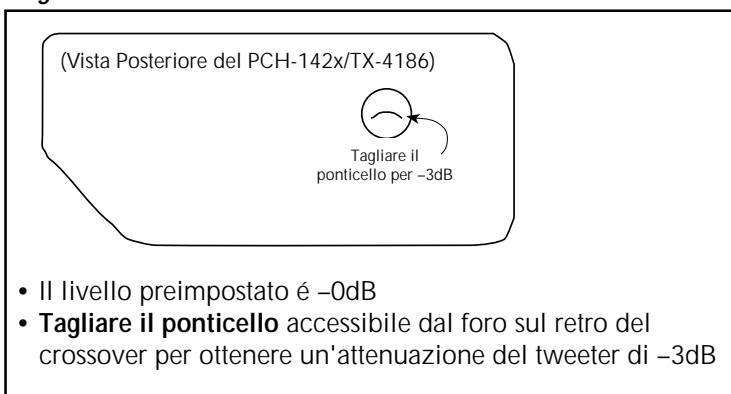


1. Posizionate la flangia sulla superficie dove il tweeter sarà posizionato e segname 2 fori diametralmente opposti ed uno al centro per farvi passare il cavo.
2. Togliere la flangia e con una punta da 6,5 mm fare un foro per il cavo dell'altoparlante. Praticare 2 fori da 3 mm per le viti.
3. Far passare i cavi attraverso il foro praticato.
4. Posizionare la flangia in posizione infilando i cavi dell'altoparlante attraverso il foro centrale. Montare la flangia con le viti a dotazione.
5. Collegate i cavi prestando attenzione alla corretta polarità. Accertarsi che i cavi dell'altoparlante siano distanti da superfici affilate e parti in movimento.
6. Incastrare il tweeter sulla flangia di montaggio.

## Cablare il PCH-142x

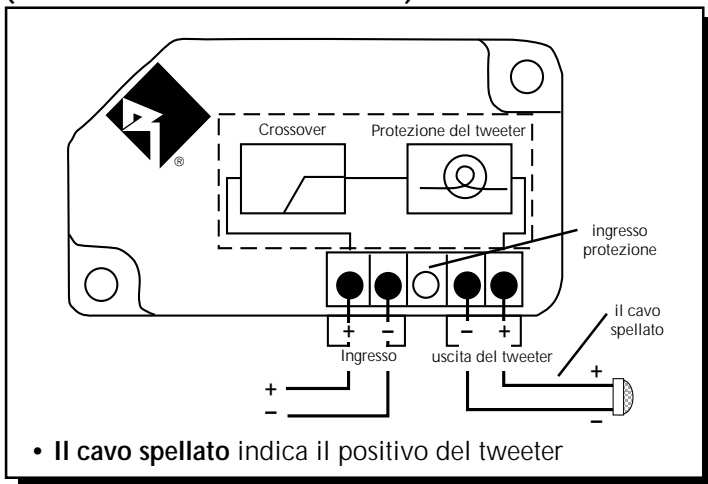


## Regolazione del livello di emissione del tweeter



## Cablare il TX-4186

### (Crossover/Protezione del tweeter)



# NOTES

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## MADE IN THE USA

This product is designed, developed and assembled in the USA by a dedicated group of American workers. The majority of the components used in the construction of this product are produced by American companies. However, due to the global nature of their manufacturing facilities and the loudspeaker parts industry in general, some parts may be manufactured in other countries.

### **Rockford Fosgate**

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